

XP-002140476

AN - 1993-411062 [51]

**A - [001] 017 04- 143 146 226 23&.231 236 239 246 255 341 353 359 364 366
367 387 428 465 473 475 48- 51& 623 627 628 656 659 686.**

- [002] 017 04- 54& 623 627 628 642 656 659

AP - JP19920146554 19920512

CPY - TANI

DC - A28 A85 A97 G02 L03 V04 X12

FS - CPI;EPI

IC - C09D5/24 ; C09D11/02 ; H05K1/09 ; H05K3/12

**KS - 0212 0231 1282 1288 1985 1990 1996 1999 2009 2016 2020 2194 2198 2200
2285 2300 2324 2371 2413 2492 2493 2494 2511 2740 2812 3182 3264**

**MC - A10-E05B A11-C02B A12-E07A G02-A05B G06-D06 L03-A01A3 L03-H04E4
- V04-R02P X12-D01X**

PA - (TANI) TANAKA KIKINZOKU KOGYO KK

PN - JP5311103 A 19931122 DW199351 C09D11/02 005pp

PR - JP19920146554 19920512

XA - C1993-183351

XIC - C09D-005/24 ; C09D-011/02 ; H05K-001/09 ; H05K-003/12

XP - N1993-318011

AB - J05311103 The printing ink comprises (A) at least one resin component selected from alkyd, modified alkyd, fatty acid base epoxy resins, urethanted oil, resin and maleic oil; (B) Ag component, pref. 0.05-1.0 micron dia. spherical powder and/or 0.5-5 micron flaky powder and Ag contg. organic metal cpd., pref. Ag carboxylate, Ag acetylacetonate or Ag alkoxide, and/or Ag contg. colloid; (C) flux component, pref.

organic metal cpd. and/or glass frit and opt. (D) one or more than two components selected from solvent, leveling agent, polymerisation initiator, oxidn. promoter, anti-skinning agent, thickening agent, metal chelating resin, dispersant and filler. Forming Ag conductor circuits comprises (I) offset printing circuit patterns on a substrate using ink for forming Ag conductor circuits; opt. (I') pressing the printed circuit patterns to make their surfaces flat and smooth; (II) curing the printed patterns by as they are/or by irradiation of active energy radiation, pref. at least one selected from UV, IR and electron rays and/or by heating; (III) overprinting the cured circuit patterns as they are and/or by the same pattern; and (IV) calcining the printed patterns, pref. at a temp. above 300 deg. C is also new.

- USE/ADVANTAGE - The printing ink for forming Ag conductor circuits and the method for forming Ag conductor circuits using the printing ink are suitable for forming Ag conductor circuits on various substrates which are used in various fields of the electronic industry. The obtd. printed Ag conductor circuits have good surface flatness due to good leveling properties, fine patterns having no defects e.g. wire breaking and reduced resistivity. (Dwg.0/0)

**IW - PRINT INK FORMING SILVER@ CONDUCTOR CIRCUIT COMPRISE RESIN MODIFIED
ALKYD FATTY ACID BASE POLYEPOXIDE RESIN URETHANATED OIL ROSIN MALEIC
OIL SILVER@ FLAKE POWDER ORGANO SILVER COMPOUND FLUX SOLVENT
IKW - PRINT INK FORMING SILVER@ CONDUCTOR CIRCUIT COMPRISE RESIN MODIFIED
ALKYD FATTY ACID BASE POLYEPOXIDE RESIN URETHANATED OIL ROSIN MALEIC
OIL SILVER@ FLAKE POWDER ORGANO SILVER COMPOUND FLUX SOLVENT**

NC - 001.

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OPD - 1992-05-12

ORD - 1993-11-22

PAW - (TANI) TANAKA KIKINZOKU KOGYO KK

TI - Printing ink for forming silver@ conductor circuit - comprises resin of (modified) alkyd, fatty acid base epoxy] resin, urethanated oil, rosin and maleic oil, silver@ flake powder, organo:silver cpd., flux and solvents etc.

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